What is claimed is:

1. (Original) A method of manufacturing a chill block, comprising:

forming a first surface of a chill block from a first material; and bonding a second material to the first surface.

2. (Original) The method of claim 1, wherein the first material is steel.

3. (Original) The method of claim 1, wherein the second material is a copper metal.

4. (Original) The method of claim 1, wherein the first surface has a thickness of the first material of less than about 0.5 inches.

5. (Original) The method of claim 1, further comprising bonding a third material to a side of the second material that is not in contact with the first material.

6. (Original) The method of claim 1, further comprising machining the chill block after the step of bonding the second material to the first material.

7. (Original) The method of claim 5, further comprising:

machining the chill block after the step of bonding the second material to the first material; and

machining the chill block after the step of bonding the third material to the second material.

8. (Original) The method of claim 5, wherein the third material is steel.

9. (Original) The method of claim 1, wherein the first surface is formed in a ceramic mold.

10. (Original) The method of claim 1, wherein the chill block is formed in a ceramic mold.

11. (Original) The method of claim 2, wherein the steel is chosen from the group consisting of ANSI H13, ANSI A2, and ANSI S7.

12. (Original) The method of claim 3, wherein the copper metal is beryllium copper.

13. (Original) The method of claim 1, wherein a surface hardness of the first material is at least 30 Rockwell "C" scale (Rc).

14. (Original) The method of claim 1, wherein a surface hardness of the steel ranges from about 30 to about 70 Rc.

15. (Original) A method of manufacturing a chill block, comprising:

using a rapid solidification process to spray a first material that forms a first layer of a chill block;

using said rapid solidification process to spray a second material onto a first surface of the first layer, said second material comprising copper.

16. (Original) The method of claim 15, wherein the first layer has a thickness of less than about 0.5 inches.

17. (Original) The method of claim 15, wherein the first layer has a hardness ranging from about 30 to about 70 Rc.

18. (Original) The method of claim 15, wherein the first layer has a thickness of less than about 0.5 inches and a hardness ranging from about 30 to about 70 Rc.

19. (Original) A chill block, comprising:

a chill block base having a top surface and a bottom surface and comprising a first material; and

a first layer of a second material bonded to the top surface of the chill block base.

20. (Original) The chill block of claim 19, wherein the second material has a thickness of less than about 0.5 inches.

21. (Original) The chill block of claim 19, further comprising a layer of a third material bonded to the bottom surface of the chill block base.

22. (Original) The chill block of claim 19, wherein the chill block base is made from a material comprising copper.

23. (Original) A tool device for use with a die casting process for shaping and solidifying molten metal into a shaped object, comprising:

shaping means for forming the shape of an object; and

a first chilling means for solidifying metal that exits the shaping means, wherein the first chilling means comprises a layer of a first material and a layer of a second material that are bonded together.

24. (Original) The tool device of claim 23, further comprising: metal inlet means for allowing metal to flow into the tool device.

25. (Original) The tool device of claim 23, further comprising: overflow means between the shaping means and the first chilling means.

26. (Original) The method of claim 23, further comprising a second chilling means arranged with the first chilling means to form a chill block passageway.

27. (Original) The method of claim 23, wherein the first material comprises steel, and the second material comprises copper.